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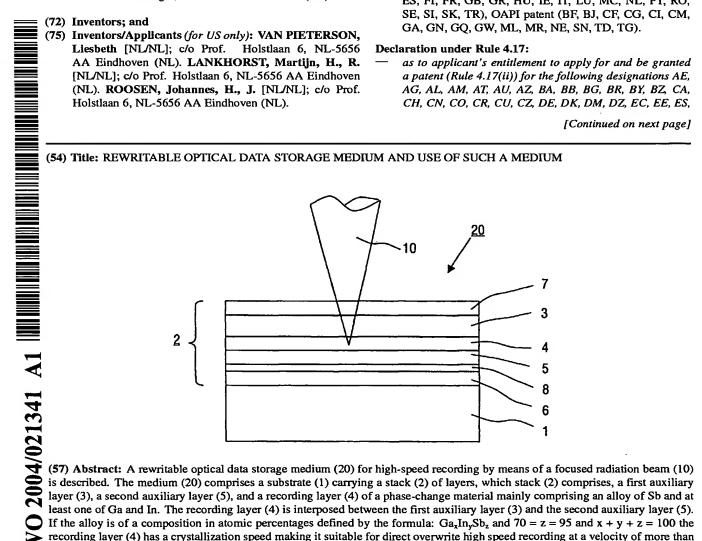
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If the alloy is of a composition in atomic percentages defined by the formula: $Ga_xIn_ySb_z$ and 70 = z = 95 and x + y + z = 100 the recording layer (4) has a crystallization speed making it suitable for direct overwrite high speed recording at a velocity of more than 10 m/s and an archival life stability of at least 10 years at 30°C. Further the recording layer (4) has a relatively low media noise.



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FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) $IPC\ 7\ G11B$

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Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

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Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to daim No.
Х	US 4 860 274 A (T KOBAYASHI) 22 August 1989 (1989-08-22) column 3, line 26 - line 30; claims 6-8	1-4,9
Α	US 4 947 372 A (N KOSHINO) 7 August 1990 (1990-08-07) column 11, line 5 - line 27; claim 1; figures 9,13	1,3
A .	US 5 271 978 A (F VAZAN) 21 December 1993 (1993-12-21) column 3, line 10 - line 40; claim 5	1,3
A	US 5 242 784 A (M Y CHEN) 7 September 1993 (1993-09-07) column 4, line 7 - line 41; claims 21,39; figure 2/	1

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Date of the actual completion of the international search	Date of mailing of the International search report
9 December 2003	18/12/2003
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PCT/IB 03/03649

	CONCERNED TO DE DELEVANT	FC1/1B 03	
	tion) DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages		Relevant to claim No.
ategory °	Charlon of document, with indication, where appropriate, of the relevant persons		•
1	US 6 232 035 B1 (A HIROTSUNE) 15 May 2001 (2001-05-15) claim 1; figure 1	1	
Ą	WO 02 059890 A (PHILIPS) 1 August 2002 (2002-08-01) page 7, line 1 - line 18 page 8, line 11 - line 15; figures 1-3		1
A	EP 0 212 336 A (BARTON) 4 March 1987 (1987-03-04) claim 8 ————		1
			·
•			

INTERNATIONAL EARCH REPORT

Internat IIcation No PCT/IB 03/03649

<u> </u>				PCI/IB	03/03649
Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 4860274	A	22-08-1989	JP DE DE EP KR	63155436 A 3784227 D1 3784227 T2 0271630 A2 9101334 B1	28-06-1988 25-03-1993 26-08-1993 22-06-1988 04-03-1991
US 4947372	A	07-08-1990	JP JP JP JP JP JP JP JP JP JP JP JP JP J	1718297 C 4001935 B 61168143 A 1690816 C 3055891 B 61168144 A 1690817 C 3055892 B 61168145 A 61227238 A 61134925 A 1718291 C 4001933 B 61134944 A 1718294 C 4001934 B 61156543 A 1721323 C 4003573 B 61156544 A 566999 B2 5079685 A 85109508 A	14-12-1992 14-01-1992 29-07-1986 27-08-1992 26-08-1991 29-07-1986 27-08-1992 26-08-1991 29-07-1986 09-10-1986 23-06-1986 14-12-1992 14-01-1992 23-06-1986 14-12-1992 14-01-1992 16-07-1986 24-12-1992 23-01-1992 16-07-1986 05-11-1987 03-07-1986 09-07-1986 17-12-1992 25-03-1993 11-06-1986 28-10-1989 15-10-1991 11-08-1992
US 5271978	A	21-12-1993	NONE		
US 5242784	A	07-09-1993	DE DE EP JP JP	69127411 D1 69127411 T2 0466670 A2 2750018 B2 4229429 A	02-10-1997 26-02-1998 15-01-1992 13-05-1998 18-08-1992
US 6232035	B1	15-05-2001	JP US	8329525 A 5958649 A	13-12-1996 28-09-1999
WO 02059890	A	01-08-2002	BR CA CN CZ EP HU WO US	0109526 A 2435652 A1 1419693 T 20023193 A3 1356467 A1 0300546 A2 02059890 A1 2002132082 A1	10-12-2002 01-08-2002 21-05-2003 12-03-2003 29-10-2003 28-07-2003 01-08-2002 19-09-2002
EP 212336	Α	04-03-1987	DE	3675845 D1	10-01-1991
					

INTERNATIONAL EARCH REPORT

Internat IIcation No PCT/IB 03/03649

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
EP 212336	Α		EP JP US	0212336 A1 62040648 A 4787077 A	04-03-1987 21-02-1987 22-11-1988